REMARKS/ARGUMENTS

Claims 1, 9 and 25 have been amended solely to correct typing mistakes of self-evident nature.

Thus claims 1, 3-9 and 11-27 are currently pending.

Claim rejections under 35 U.S.C. § 103

Claims 1, 3-5, 15, 18-27, of which claims 1 and 24 are independent claims, stand rejected under 35 U.S.C.103(a) as being unpatentable over Wake (U.S. 2002/0100864 A1, hereinafter "Wake '864") in view of Wake (U.S. 6,339,216 B1, hereinafter "Wake '216"). Remaining dependent claims stand rejected in further view of additional references. Applicant respectfully traverses all rejections.

Claim 1 recites a method for optical imaging of a light scattering object. A plurality of time-gates is selected for imaging an object. A pulse of light is injected at an injection port into said object at a time t_0. Light is collected from said object at a plurality of collection ports at the selected plurality of time-gates, providing a plurality of optical signal based temporal point spread functions. Light is collected only for selected time gates, and not for a series of consecutive time-gates. Corresponding temporal delays are introduced to each one of the optical signal based temporal point spread functions for obtaining staggered optical based temporal spread point spread functions.

The Final Office Action recognizes that Wake '864 does not teach "collecting light only for selected time gates, and not for a series of consecutive time-gates". The Final Office Action then indicates at the bottom of page 3 that Wake '216 teaches "a single time-gate samples each TPSF and is moved across successive TPSFs in order to acquire the shape of the pulse" (*emphasis added*). The Final Office Action then reads, at the top of page 4, that "It would have been obvious (...) to have included Wake '216 teachings of a single time-gate sampling each TPSF, in order to provide a more detailed pulse shape". Respectfully, stating that Wake '216

teaches using time-gating to measure a TPSF is not sufficient to teach that claim limitation. Demonstrably, the limitation of "collecting light only for selected time gates, and not for a series of consecutive time-gates" is exactly the opposite of what is taught by Wake '216.

Wake '216 uses time-gating for two related purposes: In the Abstract, Wake '216 says that a time-gating circuit opens and closes a switch at regular intervals. The time gating-circuit also receives a signal indicative of when a laser pulse is expected to arrive. A more detailed explanation of the use of time-gating in Wake '216 may be found at column 9 line 63 to column 10 line 16. Column 11 lines 5-15 Figures 16A-16D also provide additional description of the use of time-gating in Wake '216. The reference uses a first time-gating to initiate capture of a fast light-pulse at a photodetector (Abstract). Then, rapid consecutive time-gating is used to stretch the width of a sample signal (Column 11, Figures 16A-16D) in order to allow an integrator to produce a larger detector signal. This provides a wider window of time for the integrator to integrate. Column 10 lines 5-8 actually read "The time-gating signal of the circuit 108 is adjusted approximately in 17 picosecond increments over approximately a 17 nanosecond period, which is approximately the width of the TPSF curve."

Considering all of Wake '216's disclosure and all of his figures, the person of ordinary skill in the art would unmistakably conclude that Wake '216 teaches collecting light for a complete series of consecutive time-gates. This is in stark contrast to the specific limitation of the present claim 1, in which selected time gates are NOT consecutive. The skilled reader would have been led away from the present invention as claimed. It is thus respectfully submitted that claim 1 is non-obvious in view of the cited references.

Independent claim 24 recites a system for optical imaging having similar limitations to those of claim 1, including "light collecting apparatus collects light only for selected time gates, and not for a series of consecutive time-gates". The above arguments apply to claim 24, which should be found patentable over the cited references, for the same reasons.

Claims 3-9, 11-23 and 25-27 should be found allowable because they depend on allowable bases.

In light of the foregoing amendments and remarks, favourable reconsideration and timely allowance is respectfully requested.

Should the Examiner believe that a phone interview could expedite prosecution of the present application, he is invited to contact the undersigned patent agent.

AUTHORIZATION

The Commissioner is hereby authorized to charge any fees which may be required for consideration of this Amendment or credit any overpayment to Deposit Account No. **50-1145**, Order No. 703734.000020. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,
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